

ITEM 506

TEMPORARY EROSION, SEDIMENTATION AND WATER POLLUTION PREVENTION AND CONTROL

506.1. Description. This Item shall govern the control measures necessary to prevent and control soil erosion, sedimentation and water pollution which may degrade receiving waters including rivers, streams, lakes, reservoirs, tidal waters, groundwater and wetlands. The control measures contained herein shall be installed and maintained throughout the construction contract and coordinated with the permanent or existing temporary pollution control features specified elsewhere on the plans and in the specifications to assure effective and continuous water pollution control throughout the construction and post construction period. These control measures shall not be used as a substitute for the permanent pollution control measures unless otherwise directed by the Engineer in writing. The controls may include sediment control fences, baled hay, rock filter dams, dikes, swales, sediment traps and basins, pipe slope drains, paved flumes, construction exits, temporary seeding, sodding, mulching, soil retention blankets or other structural or nonstructural water pollution controls. This item does not apply to commercial operations.

506.2. Items of Work and Materials. The items, estimated quantities and locations of the control measures will be shown on the plans; however, the Engineer may increase or decrease the quantity of these items as the need arises. The materials will be shown on the plans and in the specifications. The Engineer may allow other materials and work as the need arises and as approved in writing.

506.3. Preconstruction Submittals.

(1) Operations on Right of Way. Prior to the start of construction, the Contractor shall submit to the Engineer, for written approval, schedules for accomplishment of the pollution control measures in accordance with the Storm Water Pollution Prevention Plan (SW3P). A plan for the disposal of waste materials generated on the project site must be submitted for approval, also. The Contractor shall submit to the Engineer, for written approval, the proposed SW3P for the industrial activities (such as hot mix plants, concrete batch plants, or material handling areas) on the right of way.

(2) Operations Off Right of Way. The Contractor shall provide the Engineer, for information purposes, proposed methods of pollution control for Contractor operations in areas which are outside the right of way (such as construction and haul roads, field offices, equipment and supply areas, and material sources).

Pollution control measures for the Contractor's facilities off the right of way are not covered by the Department's Environmental Protection Agency (EPA) NPDES general permit. The Contractor shall obtain his own Notice of Intent for the off-site operations. These pollution controls will not be measured for payment but shall be performed at the Contractor's expense. For facilities off the right of way, the Contractor is responsible for obtaining all permits required by any governmental entity as outlined in Article 7.2.

506.4. Construction Requirements.

(1) The Contractor shall provide control measures to prevent or minimize the impact to receiving waters as required by the plans and/or as directed by the Engineer in writing. Storm water discharges associated with industrial activities (such as hot mix plants, concrete batch plants or material handling areas) within the right of way must comply with the terms of the EPA's NPDES general permit.

For areas of the State which have an average annual rainfall less than 510 millimeters and where construction operations have ceased for an extended period of time, the disturbed area shall be stabilized as soon as possible. For all areas of the State with an average annual rainfall greater than 510 millimeters, in any disturbed area where construction activities have ceased, permanently or temporarily, the Contractor shall initiate stabilization of the area by the use of seeding, mulching, soil retention blankets or other appropriate measures within 14 days, except in areas where construction activities are scheduled to resume within 21 days.

The Contractor shall effectively prevent and control erosion and sedimentation on the site at the earliest practicable time as outlined in the approved schedule. Control measures, where applicable, will be implemented prior to the commencement of each construction operation or immediately after the area has been disturbed.

The Contractor shall limit the amount of disturbed earth to the area(s) shown on the plans or as directed by the Engineer. The Engineer has the authority to limit the disturbed surface area exposed by construction operations. If, in the opinion of the Engineer, the Contractor is not able to effectively control soil erosion and sedimentation resulting from construction operations, the Engineer will limit the amount of disturbed area to that which the Contractor is able to control.

Should the control measures fail to function effectively, the Contractor shall act immediately to bring the erosion and sedimentation under control by maintaining existing controls or by providing additional controls as directed by the Engineer. When in the opinion of the Engineer the site is adequately stabilized, the control measures, excepting mulches and soil retention blankets, will be removed and properly disposed of by the Contractor. Soil retention blankets shall be removed only when, in the opinion of the Engineer, final permanent perennial seeding would be adversely affected by the presence of an existing soil retention blanket.

All erosion, sediment and water pollution controls will be maintained in good working order. A rain gauge provided by the Department will be located at the project site. Within 24 hours of a rainfall event of 13 millimeters or more as measured by the project rain gauge, the Contractor and Engineer will inspect the entire project to determine the condition of the control measures. Sediment will be removed and devices repaired as soon as practicable but no later than seven (7) days after the surrounding exposed ground has dried sufficiently to prevent further damage from equipment needed for repair operations.

In the event of continuous rainfall over a 24-hour period, or other circumstances that preclude equipment operation in the area, the Contractor will hand carry and install additional backup devices as determined by the Engineer. The Contractor will remove silt accumulations and deposit the spoils in an area approved by the Engineer as soon as practical. Any corrective action needed for the control measures will be accomplished in the sequence directed by the Engineer, however areas adjacent to waterbodies shall generally have priority followed by devices protecting storm sewer inlets.

(2) The Contractor shall also conform to the following practices and controls. All labor, tools, equipment and incidentals to complete the following work will not be paid for directly but shall be considered as subsidiary work to the various items included in the contract, unless otherwise noted.

(a) Disposal areas, stockpiles and haul roads shall be constructed in a manner that will minimize and control the amount of sediment that may enter receiving waters. Disposal areas shall not be located in any wetland, waterbody or streambed. Construction roads may not be located in or cross any waterbody or streambed without prior approval of the Engineer and shall be done in compliance with applicable rules and regulations.

(b) Construction operations in rivers, streams, lakes, tidal water wetlands and other waterbodies shall be restricted to those areas where it is necessary to perform the work shown on the plans. Wherever streams are crossed, temporary bridges, timber mats or other structures shall be used.

(c) Protected storage for paints, chemicals, solvents, fertilizers and other potentially toxic materials will be provided by the Contractor at a location approved by the Engineer.

(d) Construction staging areas and vehicle maintenance areas shall be constructed by the Contractor in a manner to minimize the runoff of pollutants. Those areas located on the right of way must be approved by the Engineer. The Contractor shall prevent pollution of receiving waters with petroleum products or other hazardous or regulated substances. When work areas or material sources are located adjacent to a waterbody, control measures shall be used to keep sediment and other contaminants from entering the adjacent waterbody. Control devices located on the right of way will be measured for payment. Care shall be taken during the construction and removal of control measures to minimize down-gradient sedimentation.

(e) All waterways shall be cleared as soon as practicable of temporary embankment, temporary bridges, matting, falsework, piling, debris or other obstructions placed during construction operations that are not a part of the finished work.

(f) Disturbance of vegetation shall be minimized and limited to only what is shown on the construction plans or as directed by the Engineer in writing.

(g) The Contractor shall clean paved surfaces as necessary to remove sediment which has accumulated on the roadway.

(3) The project will not be accepted until the Contractor provides a uniform perennial vegetative cover with a density of 70 percent of adjacent undisturbed areas, or, if in the opinion of the Engineer, permanent measures (such as riprap, gabions, or geotextiles), supplemented by temporary measures (such as mulching with seed, hay bales, sediment control fences, earth dams, etc.) have been employed that will control erosion, sedimentation and water pollution until sufficient vegetative cover can be established.

506.5. Measurement and Payment. If the Contractor is required to install temporary erosion, sediment and water pollution control measures due to his negligence, carelessness, lack of maintenance, or failure to install permanent controls as a part of the work as scheduled, and measures are ordered in writing by the Engineer, such work shall not be measured for payment but shall be performed at the Contractor's expense. All labor, tools, equipment and incidentals to complete the work specified under Subarticle 4.(B) will not be paid for under applicable contract bid items but will be considered subsidiary to the various bid items, unless otherwise noted.

When the need for control measures can not be attributed to the Contractor's negligence, carelessness, lack of maintenance or failure to install permanent water pollution control measures and these measures are shown on the plans and/or directed by the Engineer, these measures shall be measured and paid for in accordance with applicable contract bid items. For work performed under the requirements of this item which is not comparable to work performed under contract bid items, such work shall be performed on a force account basis in accordance with Item 9 or by agreed unit prices. Removal of control measures not incorporated as permanent control measures shall be measured and paid for in accordance with applicable contract bid items.

In case of failure on the part of the Contractor to prevent and control soil erosion, sedimentation and water pollution which may degrade receiving water, the Engineer reserves the right to employ outside assistance or to use State forces to provide the necessary corrective

measures. All costs including engineering costs will be deducted from any moneys due or to become due to the Contractor.

Pollution control measures may be applicable to Contractor operations outside the right of way where such work is necessary as a result of roadway related construction such as construction and haul roads, field offices, equipment and supply areas, and material sources. Pollution control measures outside the right of way will not be measured for payment but shall be performed at the Contractor's expense.